

Alterations of glucocorticoid-suppressible neuropeptides in eating and obsessive-compulsive disorders: focus on CRH, AVP and somatostatin

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Levels of the stress-responsive, arousal producing neuropeptides corticotropin-releasing hormone (CRH), arginine vasopressin (AVP) and somatostatin (SRIF) are all elevated in the cerebrospinal fluid of patients with obsessive-compulsive disorder, while patients with major depression typically have elevated CSF CRH levels, but reductions in CSF AVP and CSF SRIF. In light of evidence that central secretion of these neuropeptides is glucocorticoid suppressible, the differences in CSF profiles between patients with obsessive-compulsive disorder and patients with major depression may arise in part from differences in peripheral HPA axis activity: hyperactivity in major depression and hypoactivity in obsessive-compulsive disorder. Furthermore, these CSF neuropeptide profiles may be related to the treatment response of obsessive-compulsive disorder to only the selective serotonin-reuptake blocking antidepressants. We have found that chronic treatment with a serotonin-reuptake blocker, in contrast to other antidepressants, reduces hypothalamic AVP secretion in vitro and others have reported that chronic treatment with serotonin reuptake blockers reduces central SRIF content in several brain areas while other antidepressants do not.